

statement of ingredients, prescribed for flour by § 137.105, except that:

(a) It contains in each pound 2.9 milligrams of thiamine, 1.8 milligrams of riboflavin, 24 milligrams of niacin, and 20 milligrams of iron.

(b) It may contain added calcium in such quantity that the total calcium content is 960 milligrams per pound. Enriched flour may be acidified with monocalcium phosphate within the limits prescribed by § 137.175 for phosphated flour, but, if insufficient additional calcium is present to meet the 960 milligram level, no claim may be made on the label for calcium as a nutrient;

(c) The requirement of paragraphs (a) and (b) of this section will be deemed to have been met if reasonable overages of the vitamins and minerals, within the limits of good manufacturing practice, are present to insure that the required levels of the vitamins and minerals are maintained throughout the expected shelf life of the food under customary conditions of distribution and storage. The quantitative content of the following vitamins shall be calculated in terms of the following chemically identifiable reference forms:

Vitamin	Reference form		
	Name	Empirical formula	Molecular weight
Thiamine ...	Thiamine chloride hydrochloride.	$C_{12}H_{17}ClN_4OS \cdot HCl$	337.28
Riboflavin	Riboflavin .....	$C_{17}H_{20}N_4O_6$	376.37
Niacin .....	Niacin .....	$C_6H_5NO_2$	123.11

(d) It may contain not more than 5 percent by weight of wheat germ or partly defatted wheat germ;

(e) In determining whether the ash content complies with the requirements of this section, ash resulting from any added iron or salts of iron or calcium or wheat germ is excluded in calculating ash content.

(f) All ingredients from which the food is fabricated shall be safe and suitable. The vitamins and minerals added to the food for enrichment purposes may be supplied by any safe and suitable substance. Niacin equivalents as derived from tryptophan content shall

not be used in determining total niacin content.

[42 FR 14402, Mar. 15, 1977, as amended at 43 FR 38578, Aug. 29, 1978; 46 FR 43414, Aug. 28, 1981; 58 FR 2877, Jan. 6, 1993]

EFFECTIVE DATE NOTE: At 61 FR 8796, Mar. 5, 1996, in § 137.165, paragraph (a) was revised, effective January 1, 1998. For the convenience of the reader, the revised text is set forth below.

#### § 137.165 Enriched flour.

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(a) It contains in each pound 2.9 milligrams of thiamin, 1.8 milligrams of riboflavin, 24 milligrams of niacin, 0.7 milligrams of folic acid, and 20 milligrams of iron.

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#### § 137.170 Instantized flours.

(a) Instantized flours, instant blending flours, and quick-mixing flours, are the foods each of which conforms to the definition and standard of identity and is subject to the requirement for label statement of ingredients prescribed for the corresponding kind of flour by §§ 137.105, 137.155, 137.160, 137.165, 137.175, 137.180, and 137.185, except that each such flour has been made by one of the optional procedures set forth in paragraph (b) of this section, and is thereby made readily pourable. Such flours will all pass through a No. 20 mesh U.S. standard sieve (840-micron opening), and not more than 20 percent will pass through a 200 mesh U.S. standard sieve (74-micron opening).

(b) The optional procedures referred to in paragraph (a) of this section are:

(1) A selective grinding and bolting procedure or other milling procedure, whereby controlled techniques are used to obtain a food too fine to meet the granulation specification prescribed in § 137.300(a) for farina.

(2) An agglomerating procedure, whereby flour that originally meets the granulation specification prescribed in § 137.105(a) has been modified by further processing, so that a number of the individual flour particles have been combined into agglomerates conforming to the granulation specifications set out in paragraph (a) of this section.

(c) The name of each product covered by this section is the name prescribed by the definition and standard of identity for the corresponding kind of flour as referred to in paragraph (a) of this section, preceded immediately and conspicuously by the words "Instantized", "Instant blending", or "Quick-mixing".

[42 FR 14402, Mar. 15, 1977, as amended at 58 FR 2877, Jan. 6, 1993]

#### § 137.175 Phosphated flour.

Phosphated flour, phosphated white flour, and phosphated wheat flour, conform to the definition and standard of identity, and are subject to the requirements for label declaration of ingredients, prescribed for flour by § 137.105, except that:

(a) Monocalcium phosphate is added in a quantity not less than 0.25 percent and not more than 0.75 percent of the weight of the finished phosphated flour; and

(b) In determining whether the ash content complies with the requirements of this section allowance is made for the added monocalcium phosphate.

[42 FR 14402, Mar. 15, 1977, as amended at 58 FR 2877, Jan. 6, 1993]

#### § 137.180 Self-rising flour.

(a) Self-rising flour, self-rising white flour, self-rising wheat flour, is an intimate mixture of flour, sodium bicarbonate, and one or more of the acid-reacting substances monocalcium phosphate, sodium acid pyrophosphate, and sodium aluminum phosphate. It is seasoned with salt. When it is tested by the method prescribed in paragraph (c) of this section not less than 0.5 percent of carbon dioxide is evolved. The acid-reacting substance is added in sufficient quantity to neutralize the sodium bicarbonate. The combined weight of such acid-reacting substance and sodium bicarbonate is not more than 4.5 parts to each 100 parts of flour used. Subject to the conditions and restrictions prescribed by § 137.105(a), the bleaching ingredients specified in such section may be added as optional ingredients. If the flour used in making the self-rising flour is bleached, the optional bleaching ingredient used there-

in (see § 137.105(a)) is also an optional ingredient of the self-rising flour.

(b) Label declaration. Each of the ingredients used in the food, shall be declared on the label as required by the applicable sections of parts 101 and 130 of this chapter.

(c) The method referred to in paragraph (a) of this section is the method prescribed in "Official Methods of Analysis of the Association of Official Analytical Chemists" (AOAC), 13th Ed. (1980), section 8.002, "Reagent (Displacement soln.)," and section 8.003, "Chittick apparatus," under the heading "Total Carbon Dioxide (1)—Official Final Action," which is incorporated by reference. Copies may be obtained from the Association of Official Analytical Chemists, 2200 Wilson Blvd., Suite 400, Arlington, VA 22201-3301, or may be examined at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC. The following procedure is substituted for the procedure specified in the AOAC, under section 8.004, "Determination":

(1) Weigh 17 grams of the official sample into flask A, add 15–20 glass beads (4–6 mm. diameter), and connect this flask with the apparatus (fig. 22). Open stopcock C and by means of the leveling bulb E bring the displacement solution to the 25 cc. graduation above the zero mark. (This 25 cc. is a partial allowance for the volume of acid to be used in the decomposition.) Allow the apparatus to stand 1–2 minutes to insure that the temperature and pressure within the apparatus are the same as those of the room. Close the stopcock, lower the leveling bulb somewhat to reduce the pressure within the apparatus, and slowly run into the decomposition flask from burette F 45 cc. of sulfuric acid (1+5). To prevent the liberated carbon dioxide from escaping through the acid burette into the air, keep the displacement solution in the leveling bulb at all times during the decomposition at a lower level than that in the gas-measuring tube. Rotate and then vigorously agitate the decomposition flask for three minutes to mix the contents intimately. Allow to stand for 10 minutes to bring to equilibrium. Equalize the pressure in the measuring tube by means of the leveling bulb and read the